AGRI 222   Introductory Agro Meteorology and Climate Change   Credit hours (1+1=2)

Theory:

Meaning and scope of agricultural meteorology; Earth atmosphere its composition, extent and structure; Atmospheric weather variables; Atmospheric pressure, its variation with height; Wind, types of wind, cyclone, anticyclone, Land breeze and sea breeze; Atmospheric temperature, Atmospheric humidity, concept of saturation, vapor pressure, process of condensation, formation of dew, fog, mist, frost, cloud; Precipitation, types of precipitation such as rain, snow, sleet, and hail, cloud formation and classification: Monsoon-mechanism and importance in Indian agriculture, Weather hazards – drought, floods, frost, tropical cyclones and extreme weather conditions such as heat-wave and cold wave. Agriculture and weather relations Weather forecasting – types of weather forecast and their uses. Climate change, global warming, causes of climate change and its impact on regional and national Agriculture.

Practical:

1. Measurement of Bright sunshine hours, total, shortwave and long wave radiation.

2.Measurement of maximum, minimum air temperatures and soil temperature.

3.Measurement of wind speed and wind direction, preparation of wind rose.

4.Determination of vapour pressure and relative humidity.

5.Measurement of rainfall.

6.Analysis of rainfall data for climatological studies.

7.Measurement of Pressure

8.Estimation of heat indices.

9.Measurement of open pan evaporation.

10. Computation of PET and AET.